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PENSOFT

First record of *Lobocheilos ixocheilos* Kottelat & Tan, 2008 (Cypriniformes, Cyprinidae) in South Sumatra province, Indonesia

Muhammad Iqbal,[1] Arum Setiawan,[2] Ina Aprilia,[1] Muhammad Isa,[3] Indra Yustian[2]

1 Sriwijaya University, Faculty of Science, Conservation Biology Program, Jalan Padang Selasa 524, Palembang, South Sumatra 30129, Indonesia. **2** Sriwijaya University, Faculty of Science, Department of Biology, Jalan Raya Palembang-Prabumulih km 32, Indralaya, South Sumatra 30662, Indonesia. **3** Kerinci Seblat National Park Section V, Jl. Garuda km 7 Kayu Ara, Lubuk Linggau, South Sumatra, Indonesia.
Corresponding author: Muhammad Iqbal, kpbsos26@yahoo.com

Abstract
Lobocheilos ixocheilos is only known from 2 major riverine systems in Sumatra and Kalimantan, Indonesia. In Sumatra, it was previously known only from the Batang Hari basin and reported from localities in the provinces of West Sumatra and Jambi. This paper provides the first record of *L. ixocheilos* from the Musi basin in South Sumatra province, thereby extending the distribution of the species approximately 150 km southwest from the previous record.

Key words
Distribution; freshwater; cyprinid; Kerinci Seblat National Park; South Sumatra; first record; Musi basin.

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Introduction

The freshwater fish faunas of East and Southeast Asia are dominated by cyprinids (Rainboth 1991). Cyprinidae is the biggest family of freshwater fish, but the phylogenetic relationships among its higher-level taxa are not yet fully resolved (Wang et al. 2012). Species are being described and genera revised on a broad front (Nelson 2006). *Lobocheilos* is a genus of cyprinid fishes native to the mainland Southeast Asia and the islands of Sumatra, Java, and Borneo (Kottelat and Tan 2008, Ciccotto and Page 2016). Two species of *Lobocheilos*, *Lobocheilos ixocheilos* Kottelat & Tan, 2008 and *L. schwanenfeldii* Bleeker, 1854, are recorded in Sumatra, but little is known about their exact distribution because of systematic confusion and the difficulty to access and sample in their natural habitats (Kottelat and Tan 2008, Kottelat 2013).

Lobocheilos ixocheilos was described in 2008 from the Batang Hari basin (Sumatra) and the Kapuas basin (Kalimantan) (Kottelat and Tan 2008). All subsequent records of *L. ixocheilos* in Sumatra are from localities in the provinces of West Sumatra and Jambi, namely: Kiliran Jao (village along road from Sungai Dareh to Solok, West Sumatra province), Pulau Pujung (Sungai Dareh, West Sumatra province) and Jambi province (without any details) (Kottelat and Tan 2008, Kottelat 2013). In this paper, we report the first record of *L. ixocheilos* in the Musi basin of South Sumatra province, which extends the species distribution 150 km from the previous distribution range.

Methods

A few unpreserved specimens of *Lobocheilos ixocheilos* were obtained from local fishermen during fieldwork

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Figure1. Muara Kulam River of Musi basin, location where *L. ixocheilos* found in South Sumatra province (Photograph by M. Iqbal).

carried out on 19–22 April 2016 in the Muara Kulam River (02°48′10.6″ S, 102°21′11.2″ E), a tributary of the Lematang drainage in the Musi basin. This river is surrounded by secondary dipterocarp forest with little encroahment and a low intensity of selective illegal logging by local people (Fig. 1). Administratively, the site is located in Muara Kulam village, Rawas Ulu subdistrict, Musi Rawas district, South Sumatra province. The topography is hilly forested at 508 m above sea level. This area is under the management of subsection V or SPTN V (SPTN = Seksi Pengelolaan Taman Nasional Wilayah, or or Regional Park Management Section) of Kerinci Seblat National Park (Anonymous 2016). Due to the area being part of a national park, collection of specimens is prohibited, unless special permits are obtained. Unfortunately, as we did not have a permit for collecting specimens during our fieldwork, no voucher specimens were retained.

Results

New records. Indonesia, Sumatra, Musi basin, Muara Kulan River, (02°48′10.6″ S, 102°21′11.2″ E), Muhammad Iqbal, Arum Setiawan, Ina Aprilia, Muhammad Isa, Indra Yustian, 19 April 2016, photographed, 8 individuals.

Identification. The specimens were identified as *Lobocheilos ixocheilos* based on the possession of diagnostic morphological characters. Following Kottelat and Tan (2008), the *L. ixocheilos* is distinguished from the other species of *Lobocheilos* of Java, Sumatra, and Borneo by the presence of an obvious, broad, black midlateral stripe, not extending on median caudal rays, and running above the lateral line on the middle half of its length; no black blotch on the end of of caudal peduncle and crescentic marks on scale pockets (apex pointing forwards); 1 pair of barbels, less than eye diameter; pectoral fin reaching to ¾ of distance to pelvic-fin origin; pelvic-fin reaching between anus and anal-fin origin; when folded backwards, tip of dorsal fin reaching between vertical through anus to anal-fin origin; and head length less than body depth at dorsal-fin origin. All of these characters were found in specimens of *Lobocheilos* from the Muara Kulam River (Musi basin), South Sumatra province (Figs 2–3). To confirm our identification, we have asked Dr Tan Heok Hui (Lee Kong Chian Natural History Museum, Singapore) expert working on the genus *Lobocheilos* in Southeast Asia, to confirm our identification using photographs, and it was confirmed that the specimens belong to *L. ixocheilos.*

Discussion

Record of *Lobocheilos ixocheilos* in Muara Kulam River of Musi basin is the first record of this species in South Sumatra province. Previous records of *L. ixocheilos* in Sumatra are from localities in the provinces of West Sumatra and Jambi, namely: Kiliran Jao and Pulau Pujung (West Sumatra province) and Jambi province (without any details) (Kottelat and Tan 2008, Kottelat 2013).

The distance between Muara Kulam River of Musi basin with previous localities where *L. ixocheilos* previously found in Sumatra is about 150 and 250 km. Major studies of cyprinid faunas in Southeast Asia have occasionally been confined to single drainage basins (Rainboth 2001). For the example, in Sumatra, a fish fauna survey in Batang Hari basin conducted by Tan and Kottelat (2008) has given better understanding on cyprinid fish diversity in this area, compare to other basins in the island. For a

Figure 2. Specimen of *Lobocheilos ixocheilos* caught on 19 April 2016 from the Musi basin, Muara Kulam River, South Sumatra (Photograph by M. Iqbal).

Figure 3. Close view of head of *Lobocheilos Ixocheilos* showing the mouth pattern (Photograph by M. Iqbal).

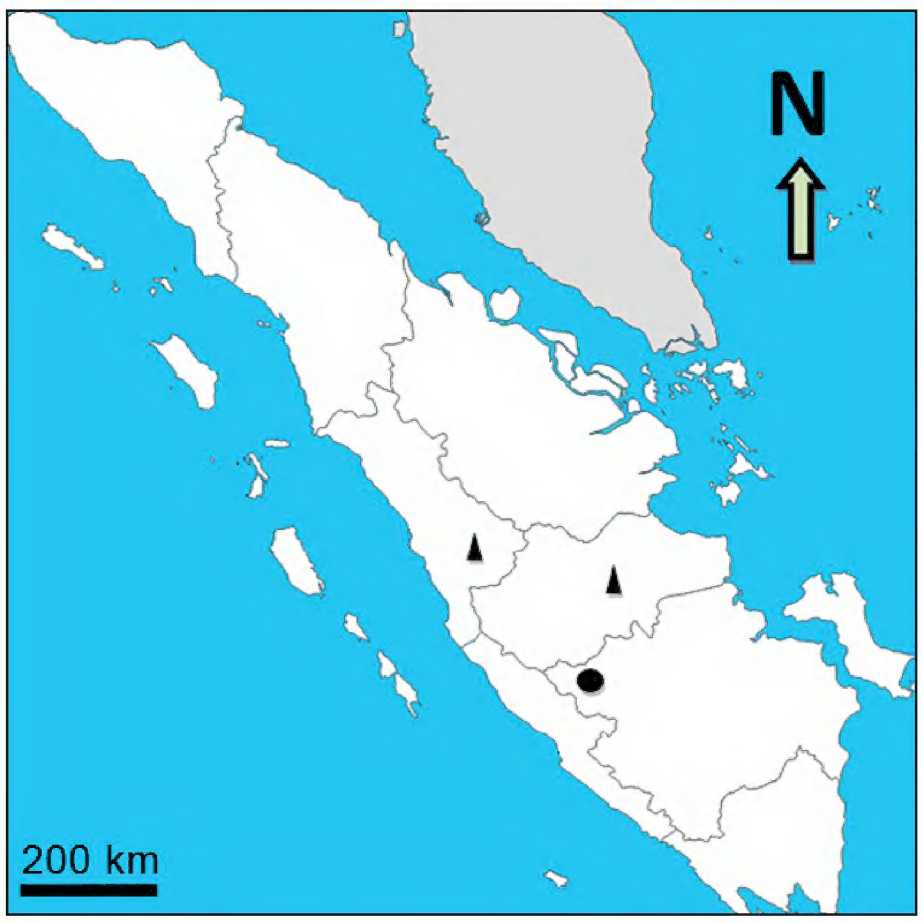

Figure 4. Distribution of *Lobocheilos ixocheilos* in Sumatra. Black triangles are the previous known localities of the species in the Batang Hari basin. Black circle is the recent record from the Musi basin.

little-known species such as *L. ixocheilos*, new records are important contributions for understanding species diversity and biogeography, among other biological topics. As reported in this paper, the new record of *L. ixocheilos* has helped to improve the knowledge of the species as it extends the distribution range of the species further southwest (Fig. 4).

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Authors' Contributions

MI, AS, and IY collected the data and wrote the text, IA and MI2 facilitated field work, and MI made the analysis.

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